WORK INSTRUCTION

Title: **Cleaning IV/OC Threads, Impact Limiter Threads, Threaded Inserts and Port Inserts**

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Approved for Use by: Michael R. Brown Effective Date: July 2003

Applicable Drawings:

- X-106-500-SNP (Sheets 1-9) RH-TRU 72-B Packaging SARP Drawings

SARP Requirements:

- None. Threads will be repaired if damaged.

Tools Required:

- 1-¼-in. - 7UNC tap (OC lid closure and impact limiter closure bolts)
- ¾-in. - 10UNC tap (OC and IV lid lift points)
- ⅞-in. - 9UNC tap (IV lid closure)
- 1-⅛-in. - 18UNEF tap (IV gas sampling port)
- 1-in. - 20UNEF tap (IV backfill port, IV seal test port, OC gas sampling, OC seal test port)
- Tap handle
- 1-¼-in., 1-⅛-in., 1-in., ¾-in., and ⅞-in. stainless steel tube brush
- 1-¾-in. Keensert™ installation tool (THXHD 2007L) (OC lid closure bolt threaded insert and impact limiter closure bolt threaded Inserts)
- 1-¼-in. Keensert™ installation tool (THD 1409L) (IV lid closure bolt threaded insert)
- 1-3/32-in. drill bit and collar (IV lid closure bolt threaded insert)
- 1-9/16-in drill bit and collar (OC lid and impact limiter closure bolt threaded inserts)
- ¼-in. diameter punch
- Power drill
- Appropriately sized short shank “E-Z Out” tool (depending upon the drill diameter used)
- Small grinder

Spare Parts Required:

- The spare parts are identified in the work instruction steps. All spare parts listed are controlled and shall be recorded on the Maintenance Record.

Materials Required:

- Tapping fluid (Anchor Lube™ N-661 or equivalent)
- Denatured alcohol or equivalent
- Lint-free rags

Safety Requirements:

- Safety will be observed in accordance with site requirements.

Prerequisite Conditions:

- Associated bolts must be removed.

Instruction Steps:

- This instruction **is not required to be attached** to the Maintenance Record, but may be used as a checklist during performance of maintenance.

Insert Thread Cleaning:

1.0 Clean threads using alcohol and appropriate sized stainless steel tube brush and lint-free rags.

2.0 Apply tapping fluid to threads being cleaned.

3.0 Insert appropriate size tap into threads by hand, rotating clockwise until snug. Ensure tap is engaged straight.

4.0 Install tap handle on tap and rotate ¼ turn clockwise, then reverse ¼ turn to break edges and rotate to bottom of threads.

5.0 Remove tap. Using emery cloth, lightly polish threads to remove sharp edges.

☐ Impact Limiter Attachment Bolt Threaded Inserts . . . . . (2078-400-12) PO#_____

☐ OC Lid Closure Bolt Threaded Inserts . . . . . (2078-300-13) PO#_____

1.0 Obtain power drill and install 1-9/16-in. diameter drill bit.

2.0 Install drill bit collar on drill bit and set to 5/16-in. maximum depth.

3.0 Follow steps outlined in Attachment 1 for insert removal and installation.

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☐ IV Lid Closure Bolt Threaded Inserts . . . . . (2078-200-15) PO#_____

1.0 Obtain power drill and install 1-3/32-in. diameter drill bit.

2.0 Install drill bit collar on drill bit and set to 5/16-in. maximum depth.

3.0 Follow steps outlined in Attachment 1 for removal and installation.

☐ OC Seal Test Port Insert . . . . . (2078-300-14) PO#_____

☐ IV Backfill Port Insert . . . . . (2078-200-16) PO#_____

☐ IV Gas Sampling Port Insert . . . . . (2078-200-17) PO#_____

☐ OC Gas Sampling Port Insert . . . . . (2078-300-15) PO#_____

☐ IV Seal Test Port Insert . . . . . (2078-200-18) PO#_____

NOTE: These inserts are installed using a ¼-in. weld around the bevel at the top and bottom of each insert. Welds shall be visually inspected in accordance with AWS D1.1. All welding procedures and personnel shall be qualified in accordance with ASME Code, Section IX.

1.0 Grind weld around top and bottom of insert.

2.0 Remove insert from cask.

3.0 Replace with new insert.

4.0 Weld new insert along beveled edge (weld will be in accordance with SAR drawing X-106-500-SNP, NOTE 10).

Verification Requirements:

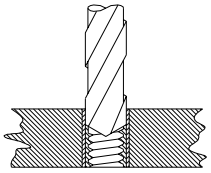
1.0 Work performed is described on the Maintenance Record.

2.0 Work Instruction is listed on the Maintenance Record.

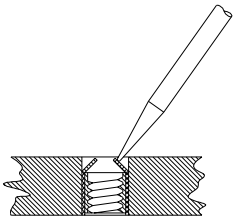
Attachment 1 - Insert Replacement

ATTACHMENT 1

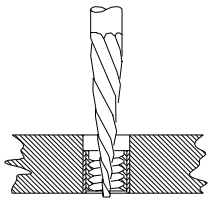
1. USE STANDARD DRILL TO REMOVE INSERT MATERIAL BETWEEN "KEES"



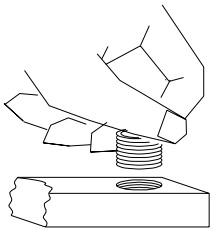
2. DEFLECT "KEES" INWARD AND BREAK OFF.



3. REMOVE INSERT WITH E–Z OUT TYPE TOOL.

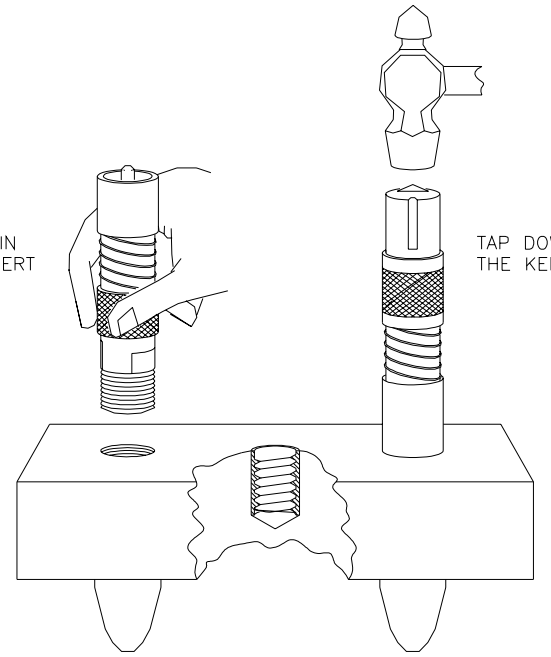


4. AN IDENTICAL INSERT CAN NOW BE INSTALLED IN THE ORIGINAL HOLE. NO RE–WORK OF THE HOLE WILL BE NECESSARY.



SCREW IN THE INSERT

TAP DOWN THE KEES



SCREW IN INSERT WITH FINGERS OR INSTALLATION TOOL. INSERT IS DESIGNED TO STOP AT THE CORRECT DEPTH BELOW THE SURFACE OF THE CASTING.